

In the Claims

For the convenience of the Examiner, all pending claims are set forth below, whether or not an amendment is made. Please amend the claims as follows:

1. (Currently Amended) A method for switching data streams, comprising:
generating a plurality of synchronous transport signal streams;
determining a destination associated with each of the plurality of synchronous transport signal streams, wherein the destination associated with each of the plurality of synchronous transport signal streams is determined by conducting a negotiation for the destination between a first transmitting interface and a second transmitting interface, the destination indicating a destination interface of a plurality of destination interfaces, each destination interface of the plurality of destination interfaces operable to transmit a synchronous transport signal stream of the plurality of synchronous transport signal streams;
recording the destination in an overhead of an associated one of the plurality of synchronous transport signal streams; and
routing each one of the plurality of synchronous transport signal streams according to the associated destination.
2. (Previously Presented) The method of Claim 1, wherein:
generating the plurality of synchronous transport signal streams comprises generating the plurality of synchronous transport signal streams at a transmitting interface; and
further comprising transmitting the plurality of synchronous transport signal streams to a switch.
3. (Canceled)
4. (Canceled)

5. (Previously Presented) The method of Claim 1, wherein recording the destination in the overhead of the associated one of the plurality of synchronous transport signal streams comprises recording the destination in a field of a transport overhead of the associated one of the plurality of synchronous transport signal streams.

6. (Previously Presented) The method of Claim 1, wherein routing each of the plurality of synchronous transport signal streams comprises:

determining the destination from the overhead of the associated one of the plurality of synchronous transport signal streams; and

configuring a switch to route the associated one of the plurality of synchronous transport signal streams to the destination.

7. (Previously Presented) The method of Claim 1, wherein routing each of the plurality of synchronous transport signal streams comprises:

determining a time slot from the destination recorded in the overhead of the associated one of the plurality of synchronous transport signal streams; and

inserting the associated one of the plurality of synchronous transport signal streams in the time slot of an outgoing synchronous transport signal stream.

8. (Previously Presented) The method of Claim 1, wherein routing each of the plurality of synchronous transport signal streams comprises:

determining a destination interface from the destination recorded in the overhead of the associated one of the plurality of synchronous transport signal streams; and

transmitting the associated one of the plurality of synchronous transport signal streams to the destination interface.

9. (Previously Presented) The method of Claim 1, wherein:
each of the plurality of synchronous transport signal streams transports data based on a communications standard; and
generating each of the plurality of the synchronous transport signal streams comprises generating each of the plurality of the synchronous transport signal streams at an interface based on the communications standard.

10. (Previously Presented) The method of Claim 1, wherein:
each of the plurality of synchronous transport signal streams comprises an associated synchronous transport signal-level 1 stream; and
further comprising multiplexing the synchronous transport signal-level 1 streams to generate a synchronous transport signal-level n stream.

11. (Currently Amended) A system for switching data streams, comprising:
a transmitting interface operable to:
 generate a plurality of synchronous transport signal streams;
 determine a destination associated with each one of the plurality of
synchronous transport signal streams, wherein the destination of each one of the plurality of
synchronous transport signal streams is determined by conducting a negotiation for the
destination ~~between a first transmitting interface and~~ with a second transmitting interface, the
destination indicating a destination interface of a plurality of destination interfaces, each
destination interface of the plurality of destination interfaces operable to transmit a
synchronous transport signal stream of the plurality of synchronous transport signal streams;
and
 record the destination in an overhead of the associated one of the plurality of
synchronous transport signal streams; and
a switch coupled to the transmitting interface and operable to:
 receive the plurality of synchronous transport signal streams from the
transmitting interface;
 determine the destinations from the overheads; and
 route each one of the plurality of synchronous transport signal streams
according to the associated destination.

12. (Canceled)

13. (Canceled)

14. (Previously Presented) The system of Claim 11, wherein the transmitting
interface is operable to record the destination in the overhead of the associated one of the
plurality of synchronous transport signal streams by recording the destination in a field of a
transport overhead of the associated one of the plurality of synchronous transport signal
streams.

15. (Previously Presented) The system of Claim 11, wherein the switch is operable to route each of the plurality of synchronous transport signal streams by:

determining the destination from the overhead of the associated one of the plurality of synchronous transport signal streams; and

configuring the switch to route the associated one of the plurality of synchronous transport signal streams to the destination.

16. (Previously Presented) The system of Claim 11, wherein the switch is operable to route each of the plurality of synchronous transport signal streams by:

determining a time slot from the destination recorded in the overhead of the associated one of the plurality of synchronous transport signal streams; and

inserting the associated one of the plurality of synchronous transport signal streams in the time slot of an outgoing synchronous transport signal stream.

17. (Previously Presented) The system of Claim 11, wherein the switch is operable to route each of the plurality of synchronous transport signal streams by:

determining a destination interface from the destination recorded in the overhead of the associated one of the plurality of synchronous transport signal streams; and

transmitting the associated one of the plurality of synchronous transport signal streams to the destination interface.

18. (Currently Amended) The system of Claim 11, wherein:
each of the plurality of synchronous transport signal streams comprises data based on a communications standard; and

~~a transmitting~~ the transmitting interface comprises an interface based on the communications standard.

19. (Currently Amended) The system of Claim 11, further comprising ~~a second~~ the second transmitting interface coupled to the switch and operable to:

generate the plurality of synchronous transport signal streams;

determine a destination associated with each of the plurality of synchronous transport signal streams; and

record the destination in an overhead of the associated one of the plurality of synchronous transport signal streams.

20. (Previously Presented) The system of Claim 11, wherein
each of the plurality of synchronous transport signal streams comprises a synchronous transport signal-level 1 stream; and

the transmitting interface is operable to multiplex the synchronous transport signal-level 1 streams to yield a synchronous transport signal-level n stream.

21. (Currently Amended) A switch for switching data streams, comprising:
an input operable to receive a plurality of synchronous transport signal streams, each of the plurality of synchronous transport signal streams comprising an overhead recording a destination;
a monitor coupled to the input and operable to receive the plurality of synchronous transport signal streams from the input and to determine the destinations recorded in the overheads, wherein the destinations are determined by conducting a negotiation for the destination between a first transmitting interface and a second transmitting interface, the destination indicating a destination interface of a plurality of destination interfaces, each destination interface of the plurality of destination interfaces operable to transmit a synchronous transport signal stream of the plurality of synchronous transport signal streams;
and
a control module coupled to the monitor, the monitor operable to reconfigure the control module to route each of the plurality of synchronous transport signal streams to the destination recorded in the associated overhead.

22. (Previously Presented) The switch of Claim 21, further comprising a multiplexer coupled to the control module and operable to multiplex at least two of the plurality of synchronous transport signal streams.

23. (Previously Presented) The switch of Claim 22, wherein:
the monitor is operable to determine a time slot from the destination recorded in the overhead of an associated one of the plurality of synchronous transport signal streams; and
the multiplexer is operable to insert the associated one of the plurality of synchronous transport signal streams in the time slot of an outgoing synchronous transport signal stream.

24. (Previously Presented) The switch of Claim 22, wherein:
the monitor is operable to determine a destination interface from the destination recorded in the overhead of an associated one of the plurality of synchronous transport signal streams; and
the multiplexer is operable to transmit the associated one of the plurality of synchronous transport signal streams to the destination interface.

25. (Previously Presented) The switch of Claim 21, wherein:
each of the plurality of synchronous transport signal streams comprises data based on a communications standard; and
the input is operable to receive each of the plurality of synchronous transport signal streams from an interface based on the communications standard.

26. (Previously Presented) The switch of Claim 21, wherein:
each of the plurality of synchronous transport signal streams comprises a synchronous transport signal-level 1 stream; and
the input is operable to receive a synchronous transport signal-level n stream that comprises each of the synchronous transport signal-level 1 streams.

27. (Currently Amended) A system for switching data streams, comprising:
means for generating a plurality of synchronous transport signal streams;
means for determining a destination associated with each one of the plurality of synchronous transport signal streams, wherein the destination of each one of the plurality of synchronous transport signal streams is determined by conducting a negotiation for the destination between a first transmitting interface and a second transmitting interface, the destination indicating a destination interface of a plurality of destination interfaces, each destination interface of the plurality of destination interfaces operable to transmit a synchronous transport signal stream of the plurality of synchronous transport signal streams;
means for recording the destination in an overhead of the associated one of the plurality of synchronous transport signal streams; and
means for routing each one of the plurality of synchronous transport signal streams according to the associated destination.

28. (Previously Presented) The system of Claim 27, wherein:
the means for generating the plurality of synchronous transport signal streams is operable to generate the plurality of synchronous transport signal streams at a transmitting interface; and
further comprising means for transmitting the synchronous transport signal streams to a switch.

29. (Canceled)

30. (Canceled)

31. (Previously Presented) The system of Claim 27, wherein the means for recording the destination in the overhead of the associated one of the plurality of synchronous transport signal streams is operable to record the destination in a field of a transport overhead of the associated one of the plurality of synchronous transport signal streams.

32. (Previously Presented) The system of Claim 27, wherein the means for routing each of the plurality of synchronous transport signal streams is operable to route each one of the plurality of synchronous transport signal streams by:

determining the destination from the overhead of the associated one of the plurality of synchronous transport signal streams; and

configuring a switch to route the associated one of the plurality of synchronous transport signal streams to the destination.

33. (Previously Presented) The system of Claim 27, wherein the means for routing each of the plurality of synchronous transport signal streams is operable to route each of the plurality of synchronous transport signal streams by:

determining a time slot from the destination recorded in the overhead of the associated one of the plurality of synchronous transport signal streams; and

inserting the associated one of the plurality of synchronous transport signal streams in the time slot of an outgoing synchronous transport signal stream.

34. (Previously Presented) The system of Claim 27, wherein the means for routing each of the plurality of synchronous transport signal streams is operable to route each one of the plurality of synchronous transport signal streams by:

determining a destination interface from the destination recorded in the overhead of each one of the plurality of synchronous transport signal streams; and

transmitting each one of the plurality of synchronous transport signal streams to the destination interface.

35. (Previously Presented) The system of Claim 27, wherein:

each of the plurality of synchronous transport signal streams comprises data based on a communications standard; and

the means for generating each one of the plurality of synchronous transport signal streams is operable to generate each one of the plurality of synchronous transport signal streams at an interface based on the communications standard.

36. (Previously Presented) The system of Claim 27, wherein:
each of the plurality of synchronous transport signal streams comprises a synchronous transport signal-level 1 stream; and
further comprising means for multiplexing the synchronous transport signal-level 1 streams to yield a synchronous transport signal-level n stream.

37. (Currently Amended) Logic for switching data streams, the logic encoded in media and operable to:

generate a plurality of synchronous transport signal streams;

determine a destination associated with each of the plurality of synchronous transport signal streams, wherein the logic is operable to determine the destination of a synchronous transport signal stream by conducting a negotiation for the destination between a first transmitting interface and a second transmitting interface, the destination indicating a destination interface of a plurality of destination interfaces, each destination interface of the plurality of destination interfaces operable to transmit a synchronous transport signal stream of the plurality of synchronous transport signal streams;

record the destination in an overhead of the associated one of the plurality of synchronous transport signal streams; and

route each one of the plurality of synchronous transport signal streams according to the associated destination.

38. (Currently Amended) The logic of Claim 37, wherein the logic is operable to:
generate the plurality of synchronous transport signal streams at a transmitting interface; and

transmit the plurality of synchronous transport signal streams to a ~~switch~~ switch.

39. (Canceled)

40. (Canceled)

41. (Previously Presented) The logic of Claim 37, wherein the logic is operable to record the destination in the overhead of the associated one of the plurality of synchronous transport signal streams by recording the destination in a field of a transport overhead of the associated one of the plurality of synchronous transport signal streams.

42. (Previously Presented) The logic of Claim 37, wherein the logic is operable to route each of the plurality of synchronous transport signal streams by:

determining the destination from the overhead of each of the plurality of synchronous transport signal streams; and

configuring a switch to route each of the plurality of synchronous transport signal streams to the destination.

43. (Previously Presented) The logic of Claim 37, wherein the logic is operable to route each of the plurality of synchronous transport signal streams by:

determining a time slot from the destination recorded in the overhead of the associated one of the plurality of synchronous transport signal streams; and

inserting the associated one of the plurality of synchronous transport signal streams in the time slot of an outgoing synchronous transport signal stream.

44. (Previously Presented) The logic of Claim 37, wherein the logic is operable to route each of the plurality of synchronous transport signal streams by:

determining a destination interface from the destination recorded in the overhead of each one of the plurality of synchronous transport signal streams; and

transmitting each one of the plurality of synchronous transport signal streams to the destination interface.

45. (Previously Presented) The logic of Claim 37, wherein:
each of the plurality of synchronous transport signal streams comprises data based on a communications standard; and

the logic is operable to generate each one of the plurality of synchronous transport signal streams at an interface based on the communications standard.

46. (Previously Presented) The logic of Claim 37, wherein:
each of the plurality of synchronous transport signal streams comprises a synchronous transport signal-level 1 stream; and
the logic is operable to multiplex the synchronous transport signal-level 1 streams to yield a synchronous transport signal-level n stream.

47. (Currently Amended) A system for switching data streams, comprising:

- a plurality of transmitting interfaces, at least one transmitting interface comprising an Ethernet interface, at least one transmitting interface comprising a SONET interface, each transmitting interface operable to:
 - generate a plurality of synchronous transport signal streams, at least one synchronous transport signal stream comprising Ethernet data, at least one synchronous transport signal stream comprising SONET data;
 - negotiate with a destination interface of a plurality of destination interfaces to determine a destination associated with each synchronous transport signal stream, the destination indicating a destination interface of a plurality of destination interfaces, each destination interface of the plurality of destination interfaces operable to transmit a synchronous transport signal stream of the plurality of synchronous transport signal streams;
 - and
 - record the destination in a transport overhead of the associated synchronous transport signal stream; and
- a switch coupled to the transmitting interfaces and comprising:
 - an input operable to receive the synchronous transport signal streams;
 - a monitor coupled to the input and operable to receive the synchronous transport signal streams from the input, and to determine a time slot and a destination interface from the destination recorded in the transport overhead of a synchronous transport signal stream;
 - a control module coupled to the monitor, the monitor operable to reconfigure the control module; and
 - a multiplexer coupled to the control module and operable to receive a routing instruction from the control module, to insert a synchronous transport signal stream in the determined time slot of an outgoing synchronous transport signal stream, and to transmit the synchronous transport signal stream to the destination interface.